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NAVAL POSTGRADUATE SCHOOL

MONTEREY, CALIFORNIA

THESIS

STATE TOOLS TO UPDATE AND STRENGTHEN STATUTES FOR AGRICULTURE EMERGENCIES

by

Ann Peters Garvey

March 2006

Thesis Advisor:	Ellen M. Gordon
Second Reader:	Radford G. Davis

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13. ABSTRACT

Many existing state statutes for animal health emergencies fail to comprehensively address authorities needed during animal health emergency response. Therefore, it is vitally important that states review and revise their authorities to develop clear and comprehensive powers to respond. This thesis was developed to assist states with the process of revision by providing a model outline of topic areas that should be addressed in state statutes for animal health emergencies. The model outline of topic areas is intended to provide states with a suggested framework for revising their existing state statutes.

Because there are significant variations in the organizational structure of state animal health regulatory officials within each state, there is not a statutory model that can be applied universally to all fifty states. That is why this thesis attempts to provide the outline of topic areas that each state needs to address individually, rather than presenting universal language. If states intend to respond quickly and efficiently to animal health emergencies, authorities must be clearly delineated and comprehensively written. It is the author's hope that this thesis will help states update and add to their statutes, ultimately improving their response to animal health emergencies. In addition, revision of the statutes will eliminate inefficiencies that may lead to delayed response effort, and will preserve local, state, and federal government resources and funding.

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STATE TOOLS TO UPDATE AND STRENGTHEN STATUTES FOR AGRICULTURE EMERGENCIES

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ABSTRACT

Many existing state statutes for animal health emergencies fail to comprehensively address authorities needed during animal health emergency response. This failure is primarily due to the fact that statutes are dated and were originally developed on a disease specific basis to address disease control programs administered by the state and federal governments. Exertion of animal health emergency authorities occurs on a somewhat regular basis and requires coordination across many jurisdictional and disciplinary boundaries. Therefore, it is vitally important that states review and revise their authorities to develop clear and comprehensive powers to respond.

This thesis was developed to assist states with the process of revision by providing a model outline of topic areas that should be addressed in state statutes for animal health emergencies. The model outline of topic areas is intended to provide states with a suggested framework for revising their existing state statutes.

Because there are significant variations in the organizational structure of state animal health regulatory officials within each state, there is not a statutory model that can be applied universally to all fifty states. That is why this thesis attempts to provide the outline of topic areas that each state needs to address individually, rather than presenting universal language. If states intend to respond quickly and efficiently to animal health emergencies, authorities must be clearly delineated and comprehensively written. It is the author's hope that this thesis will help states update and add to their statutes, ultimately improving their response to animal health emergencies. In addition, revision of the statutes will eliminate inefficiencies that may lead to delayed response effort, and will preserve local, state, and federal government resources and funding

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I. INTRODUCTION

State and federal animal health regulatory agencies complete hundreds of animal disease investigations each year. In 2004, approximately nine hundred and fourteen animal disease investigations were conducted across the nation, many resulting in further emergency action.[1] Some emergencies have been large in scale, warranting complex response operations and attracting attention from the media and public, such as the California Exotic Newcastle's Disease outbreak in 2002. There have also been smaller scale emergencies, such as the occasional outbreak of disease occurring in poultry flocks. These outbreaks periodically result in the depopulation of only one or two flocks. No matter how large or small the emergency, there are numerous state authorities being exerted during the investigation, control, and eradication efforts. Because of this frequent use, the authorities should be clearly and comprehensively outlined in state statue to ensure clarity of authority and enforceability.

There are usually many different jurisdictions and disciplines involved in animal health emergency response efforts. Such was the case with the 2002 California Exotic Newcastle's Disease outbreak, where approximately 5,400 federal and 2,300 state personnel. Eleven agencies were engaged in the disease eradication and control efforts, as were over 27 agencies representing five different states.[2] Even smaller outbreaks, such as like the poultry disease outbreaks mentioned above, which periodically result in the depopulation of one or two flocks, will likely involve at least three or four state and federal agencies. Thus in order to assure rapid and effective response, authorities and

[1] Sebastian Heath, United States Department of Agriculture, data provided to the author, [1/03/2006]

[2] Jack Shere and Annette Whiteford, United States Department of Agriculture, *Exotic Newcastle Disease Response Overview.* Available: http://www.aphis.usda.gov/vs/training/ss_2003/WhitefordFEMA.pdf [9/14/2005]

responsibilities must be clearly delineated in statute. Any confusion regarding authorities and responsibilities will certainly slow the disease control and eradication efforts.

Because animal health emergency authorities are frequently exerted and usually require coordination across many jurisdictional and disciplinary lines, state authorities should be comprehensive, addressing all components of emergency response. State statutes must grant necessary authorities, define responsibilities, and delineate emergency actions. State statutes must also assure that actions, for example establishment of a quarantine zone, are enforceable. If there is a lack of clarity in authorities, the response effort could be delayed and inefficient, unnecessarily propagating further disease transmission which could ultimately cost both the government and private industry significant funding and resources.

A. CURRENT STATE:

Many state statutes were developed over the last century in response to specific types of animal disease. As federal and state disease eradication and control programs were implemented for specific diseases and species, statutes were developed to address these individual programs. As a result many state statutes were compartmentalized by disease program and species. For example, in many states, such as Iowa, there are specific sections of State of Iowa Code addressing the following diseases Brucellosis, Tuberculosis, Hog Cholera, Scabies, and Aujeszkey's Disease.[3]

Because of this method of statute development, two areas of concern have emerged regarding states current statutes. First, in these existing statutes, authorities were piecemealed according to the specific disease response needs. Although the authorities outlined in those sections are certainly necessary and

[3] *Animal Industry* (1999). Title 5. *Iowa Code,* Subtitle2. Available: http://www.legis.state.ia.us/IACODE/1999SUPPLEMENT/V.html [2/28/2006]

important, this disease and species specific structure could result in omissions or incomplete identification of necessary authorities.

Second, animal health emergency response authorities may be unclear or ambiguous in emergency situations that fall outside of this tightly-constricted list of diseases. This is of concern because it is probable that future emergencies will fall outside of this predefined list of historic threats. There are constantly new and emerging animal diseases developing around the world, such as Severe Acute Respiratory Syndrome (SARS), Monkeypox, Nipah Virus, and new virulent Avian Influenza Strains. Therefore, states must assure that general emergency response authorities are in place for both known and yet unknown diseases.

B. PROPOSED SOLUTION

To address the concerns highlighted above, states should review and revise their existing statutes to develop general emergency response authorities that are written broadly for all animal health emergencies. These general authorities should not be tied to specific diseases or species; rather they should be applicable to and consistent across all diseases that would trigger emergency actions. Further, general emergency response statutes should be comprehensive, addressing all aspects of disease identification, control, and eradication.

Because currently many state statutes fail to fully address all necessary authorities; a model outline of topic areas that should be addressed in state statutes for animal health emergencies was developed in chapter two of this thesis. The model outline is intended to provide states with a suggested framework for revising their existing state statutes.

The concept of creating a model outline of topic areas that should be addressed in state statutes for animal health emergencies was borrowed from the public health field. Following the devastating events of 2001, the September 11th attacks on the World Trade Center and the Pentagon, as well as the subsequent Anthrax attacks, public health entities began reviewing their related

response plans and statutory authorities.[4] During those initial reviews, states realized that many of their existing laws were several centuries old and incomplete.[5] In response to these challenges, the public health field created the Model Emergency Health Powers Act. The Model Emergency Health Powers Act focused attention on the importance of reviewing and revising authorities prior to a public health emergency and prompted the field to start discussing statutory issues related to public health emergency response. The intent of this thesis is to provide the same type of encouragement to the animal health field, ultimately motivating states to take similar steps to review and update their statutes.

[4] Toni Locy. "Quarantine Laws Being Updated." *USA Today*, 23 April 2003. Available: http://www.usatoday.com/news/health/2003-04-22-quarantine_x.htm [8/10/2005]

[5] Toni Locy. "Quarantine Laws Being Updated." *USA Today*, 23 April 2003. Available: http://www.usatoday.com/news/health/2003-04-22-quarantine_x.htm [8/10/2005]

II. MODEL OUTLINE OF ANIMAL HEALTH EMERGENCY POWERS

This chapter will present a suggested outline of topic areas that states should consider when reviewing and revising their current animal health emergency authorities. This outline is not meant to be all-inclusive, as it is anticipated that there will be state-specific issues that should be considered as well.

Because the structure of state animal health regulatory officials varies greatly from one state to another, these differences will have significant effects on the organization of statutory authorities. While some states have stand-alone boards of animal health that are separate from their departments of agriculture, in other states these functions are combined. Also, some agriculture department directors are elected officials, while in other states they are appointed by the governor. Because of these structural differences, there is not a one–size-fits-all statutory model that can be applied universally to all fifty states. That is why this thesis merely attempts to provide the outline of topic areas that each state needs to address individually, rather than presenting universal language. Further, the existence of significant state-specific nuances emphasizes the importance of defining agriculture emergency authorities to assure that roles, responsibilities, and regulations are clear not only to state government officials but also to their local, border state, and federal counterparts.

The outline contained in this chapter is intended to present states with a starting point for analysis and discussion. For each topic area identified, there will be a discussion of the importance of addressing that issue and examples of existing state statutes presented for illustration and consideration.

The topic areas include:

A. Measures to detect, report, and track animal health emergencies
    1. Mandatory Disease Reporting
        a. Lists of Reportable Diseases:
        b. Entities Mandated to Report Disease:
        c. Reporting Mechanisms
        d. Reporting Enforcement and Penalties for Non-Compliance
        e. Interagency and Cross-Jurisdictional Disease Notification Requirements.
    2. Animal tracking systems and certifications of veterinary inspection
        a. Animal tracking systems
        b. Certifications of veterinary inspection / health papers
    3. Disease Investigations
B. Emergency declarations and proclamations
C. Disease Control Measures
    1. Hold Order (Voluntary Confinement)
    2. Mandatory Quarantine:
        a. Quarantine Order Issuing Authorities and Requirements to Consult and/or Notify Other State Officials that Quarantine Orders Have Been Issued.
        b. Criteria for Issuing and Effects of Quarantines Orders
        c. Providing Notice of Quarantine
        d. Quarantine Enforcement
        e. Penalties for Non-Compliance
        f. Appealing Quarantine Orders
        g. Releasing Quarantine Orders
    3. Condemnation
    4. Carcass Disposal
D. Public Information Regarding Animal Health Emergencies
E. Indemnity and fiscal considerations
F. Wildlife considerations
G. Orders of embargo:
H. Financial considerations of response efforts
I. Interstate coordination
J. Volunteer veterinary teams

A. MEASURES TO DETECT, REPORT, AND TRACK ANIMAL HEALTH EMERGENCIES

The following outline of statutory issues related to animal disease detection, reporting, and tracking should be considered by states when reviewing and drafting state law for animal health emergencies. These components will be discussed individually throughout the rest of this section.

1. Mandatory Disease Reporting
    a. Lists of Reportable Diseases:
    b. Entities Mandated to Report Disease:
    c. Reporting Mechanisms
    d. Reporting Enforcement and Penalties for Non-Compliance
    e. Interagency and Cross-Jurisdictional Disease Notification Requirements.
2. Animal tracking systems and certifications of veterinary inspection
    a. Animal tracking systems
    b. Certifications of veterinary inspection / health papers
3. Disease Investigations

1. Mandatory Disease Reporting

Disease reporting is a vital initiating trigger to the animal health emergency response function. The timeliness of disease reporting is central to the success or failure of the response operation. For example, when Foot and Mouth Disease was introduced into the United Kingdom in 2001, the owner of the first infected herd knowingly chose to ship the sick animals to market. This ultimately resulted in the Foot and Mouth Disease virus being spread across much of the United Kingdom. This example illustrates the important effect disease reporting has on the effectiveness of response operations.

State statutes and administrative rules should clearly define all requirements related to mandatory reporting of animal diseases. States should review existing language and assure that the following components of mandatory disease reporting are adequately addressed.

a. Lists of Reportable Diseases

Most states have established lists of mandatory reportable diseases incorporated in their current state statutes or administrative rules, however, many of these lists were simply compiled as states administered eradication programs throughout the years, and therefore the lists may be dated or do not address current disease threats.

Disease reporting is a complex issue to address statutorily because ideally illness would be reported immediately upon the animal care takers or veterinarians observation of any unusual clinical signs. That being said, it would be extremely difficult, if not impossible to enforce that type of broad regulatory action because what may seem unusual to one observer may not to others. Further, while most states have regionally based staff veterinarians located across the state to respond to reports of suspicious disease, in most cases these infrastructures could not withstand the incredible influx of reports that would occur if states attempted to enact this type of broad statutory requirement.[6]

Therefore, it would seem that the current statutory disease-specific reporting model is the most feasible mechanism to enforce disease reporting. And training, education, and outreach programs to veterinarians and producers would seem the best mechanism for emphasizing the importance of immediately reporting all unusual clinical symptoms to the appropriate authorities or subject matter experts for further investigation.

States should review their mandatory reportable disease lists to assure that they are comprehensive and incorporate all diseases of concern to animal health authorities and producers in their state. Statutes should require state notification if a disease on this list is suspected or confirmed. Even more

[6] The following notification stream is consistent with how most current disease reporting streams function:

Animal caretakers report disease to their local practicing or staff veterinarians, if those local practicing or staff veterinarians suspect a disease significant to or not currently existing within the state (or a mandated reportable disease) they report that suspicion to state or federal veterinarians. This report triggers a formal investigation to be conducted jointly by state and federal animal health authorities.

importantly, states should assure that their statutes are written with the flexibility to quickly and easily incorporate new threats and emerging diseases as they develop. State statutes should incorporate statutory processes that allow state animal health authorities to add additional diseases to the mandatory disease reporting list quickly in emergency situations, as diseases occur and disrupt the animal industry. This statutory authority to quickly add diseases to the mandatory reporting list should be developed, if even on a temporary basis, to prevent having to go through the rule-making process during an emergency response operation.

For example, the Texas animal health statute below includes a detailed list of the mandatory reportable diseases and provides the flexibility to quickly incorporate additional disease threats.

Texas Statutes Agriculture Code.
Title 6, Chapter 161, Section 101. Duty to Report.[7]

> (a) A veterinarian, a veterinary diagnostic laboratory, or a person having care, custody, or control of an animal shall report the existence of the following diseases among livestock, exotic livestock, bison, domestic fowl, or exotic fowl to the commission within 24 hours after diagnosis of the disease:
>
> (1) anthrax;
>
> (2) avian infectious laryngotracheitis;
>
> (3) avian influenza;
>
> (4) avian tuberculosis;
>
> (5) chronic wasting disease;
>
> (6) duck virus enteritis;
>
> (7) duck virus hepatitis;
>
> (8) equine encephalomyelitis;
>
> (9) equine infectious anemia;
>
> (10) infectious encephalomyelitis in poultry or other fowl;

[7] *Duty to Report* (2003). Title 6. *Texas State Agriculture Code*, Section 101. Available: http://www.capitol.state.tx.us/statutes/agtoc.html. [2/10/2006]

(11) ornithosis;

(12) paramyxovirus infection in poultry or other fowl; or

(13) scabies in sheep or cattle.

(b) In addition to reporting required by Subsection (a), the commission may adopt rules that require a veterinarian, a veterinary diagnostic laboratory, or a person having care, custody, or control of an animal to report the existence of a disease other than blue tongue in an animal to the commission within 24 hours after diagnosis if the disease:

(1) is recognized by the United States Department of Agriculture as a foreign animal disease;

(2) is the subject of a cooperative eradication program with the United States Department of Agriculture;

(3) is named on "List A" of the Office International Des Epizooties; or

(4) is the subject of a state of emergency, as declared by the governor.

(c) The commission may adopt rules that require a veterinarian, a veterinary diagnostic laboratory, or a person having care, custody, or control of an animal to report a disease not covered by Subsection (a) or (b) if the commission determines that action to be necessary for the protection of animal health in this state. The commission shall immediately deliver a copy of a rule adopted under this subsection to the appropriate legislative oversight committees. A rule adopted by the commission under this subsection expires on the first day after the last day of the first regular legislative session that begins after adoption of the rule unless the rule is continued in effect by act of the legislature.

(d) The commission may not adopt, amend, or repeal a rule under this section unless the commission holds a public hearing on the proposed action following public notice of the hearing.

b. Entities Mandated to Report Disease

States should statutorily define “who” is mandated to report suspicions of disease. This list should include animal owners, animal caretakers, veterinarians, and laboratories. The inclusion of animal owners and caretakers in this list is especially important as they will likely be the first to notice the clinical signs and symptoms of disease in their animals and herds. The Texas statute

provided above comprehensively addresses this issue, as it requires "a veterinarian, a veterinary diagnostic laboratory, or a person having care, custody, or control of an animal" to report disease.[8]

c. Reporting Mechanisms

States should also statutorily define mechanisms for reporting animals that are diseased or suspected to be diseased. Clarification of reporting mechanisms prevents confusion and is important as states consider issuing penalties for failure to report disease incidence. States should specifically address the following issues regarding reporting mechanism:

- Statutes should designate the entity to which reports should be submitted, this entity should most likely be the state's lead animal health official or designee. This designation will minimize confusion resulting from misreporting to inappropriate officials.
- States should identify acceptable methods to submit reports, for example by telephone or in writing.
- States should define acceptable timelines for reporting, such as within 24 or 48 hours of suspecting disease.

d. Reporting Enforcement and Penalties for Non-Compliance

Statutes should develop procedures for issuing penalties for failing to report disease. These penalties may deter animal owners, caregivers, veterinarians, and laboratories from choosing not to promptly report cases or suspected cases of disease.

Florida has the statutory authority to charge any animal owner or veterinarian convicted of failing to report animal disease with a second degree felony. Florida's statute related to reporting animal disease is included below.

[8] *Duty to Report* (2003). Title 6. *Texas State Agriculture Code,* Section 101. Available: http://www.capitol.state.tx.us/statutes/agtoc.html. [2/10/2006]

Florida Statutes, Title 35, Chapter 585,
Section 18. Duty to Report Diseased Animals[9]

(1) Any person who has knowledge of the existence in or among animals of any contagious, infectious, or communicable disease which is included on the department's dangerous transmissible disease list shall, immediately upon gaining such knowledge, report the same to the State Veterinarian.

(2) No person who has knowledge that any animal is afflicted with or suffering from any such disease shall conceal or attempt to conceal such animal, or knowledge or evidence that such animal is afflicted with or suffering from any such disease, from the division or its agents and employees, or shall remove or attempt to remove such animal from the reach, care, or control of the department or its agents and employees.

Section 19, Duty of practitioners of veterinary medicine and owners of animals to report dangerous transmissible diseases or pests; penalty [10]

(1) Any practitioner of veterinary medicine who knows or suspects that an animal is afflicted with or suffering from a disease or pest designated on the department's dangerous transmissible disease list shall immediately report the same to the State Veterinarian in the manner which the department shall prescribe.

(2) Any owner who knows or suspects that her or his animal is afflicted with or suffering from a disease or pest designated on the department's dangerous transmissible disease list shall immediately report the same to the State Veterinarian in the manner which the department shall prescribe.

(3) All reports related to a disease or pest designated on the department's dangerous transmissible disease list shall be made in the manner which the department shall by rule prescribe.

---

[9] *Duty to Report Diseased Animals* (2005).Title 35. *Florida Statutes,* Chapter 585, Section 18. Available: http://www.flsenate.gov/Statutes/index.cfm?App_mode=Display_Statute&URL=Ch0585/ch0585.htm [2/10/2006]

[10] *Duty of practitioners of veterinary medicine and owners of animals to report dangerous transmissible diseases or pests; penalty* (2005). Title 35. *Florida Statutes*, Chapter 585, Section 19. Available: http://www.flsenate.gov/Statutes/index.cfm?App_mode=Display_Statute&URL=Ch0585/ch0585.htm [2/10/2006]

(4) Any veterinarian or owner of an animal who is convicted of willfully failing to report an animal as required in subsection (1) or subsection (2) is guilty of a felony of the second degree, punishable as provided in s. 775.082, s. 775.083, or s. 775.084.

(***S. 775.082, s. 77.083, and s.775.084 dictate the penalties for committing a felony in the second degree in the state of Florida. The penalties are summarized below. For first offense:*** (c) For a felony of the second degree, by a term of imprisonment not exceeding 15 years. ***For repeat offenses: (***c) For a felony of the second degree, by a term of imprisonment of 15 years. ***Fines:*** (b) $10,000, when the conviction is of a felony of the first or second degree.)

e. Interagency and Cross-Jurisdictional Disease Notification Requirements

State should also statutorily specify instances in which the lead animal health official should notify other state and federal officials that a disease report has been made. Likewise statutes should also clarify instances when other state agencies must notify the lead animal health official of disease threats to the animal industry. Notification of response partners is important to maintaining a coordinated response effort across jurisdictional and disciplinary lines.

For example, consider a wide-scale outbreak of an animal disease. Regardless of its true effect on humans, it may cause worried well among the general public. Therefore, it is important that public health agencies be notified of the incidents so they can provide the public with timely and accurate information about the threat, thereby lessening public panic or fear.

Another example of an important agency to notify is the wildlife regulating agency. Because many domestic animal diseases have the potential to cross over into the wildlife population, it is important for the agency that regulates wildlife to be notified of any disease outbreaks that could affect wildlife.

The following statutory example from the State of Wisconsin requires cross notification between the department of natural resources and the department of agriculture, trade and consumer protection.

Wisconsin Statutes and Annotations. Chapter 95, Section 22. Reporting animal diseases. [11]

(1) A veterinarian and the department of natural resources shall report to the department of agriculture, trade and consumer protection any disease specified in the rules promulgated under sub. (2) (a) each time a veterinarian or the department of natural resources discovers that such a disease is present in any animal in this state.

(2) The department shall promulgate rules that specify all of the following:

(a) The diseases that a veterinarian or the department of natural resources must report under this section.

(b) For each disease specified in par. (a), the deadline for reporting the disease after the date of its discovery.

(c) The information that a veterinarian or the department of natural resources must include in his or her report.

(d) Procedures to be used in preparing and submitting the report.

(3) The department of agriculture, trade and consumer protection shall notify the department of natural resources of the contents of any report submitted under sub. (1) by a veterinarian if the department of agriculture, trade and consumer protection determines that the disease that is the subject of the report may present a threat to any wild animals present in this state.

(4) The department shall provide the reports of any communicable diseases under sub. (1) to the department of health and family services.

2. Animal Tracking Systems and Certifications of Veterinary Inspection

During an animal disease outbreak, both animal tracking systems and certifications of veterinary inspection will serve as important mechanisms to predict, track, and estimate disease transmission among animal populations. The use and implementation of these systems and procedures should be supported in states' statutes.

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[11] *Reporting animal diseases* (2004). Chapter 95. *Wisconsin Statutes & Annotations*, Section 22. Available: http://www.legis.state.wi.us/statutes/Stat0095.pdf [2/10/2006]

a. Animal Tracking Systems

Animal tracking systems are currently being developed and implemented in states across the nation. With time, states will need to develop statutes to address the implementation and regulation of the system. Currently states are in the preliminary stages of identifying and registering premises on which animals are raised, processed, held, or through which they are transported. In an effort to increase system implementation, some states have statutorily mandated their producers and industry representatives to register their premises. Because states are addressing the initial stages of premise identification and the implementation of tracking systems somewhat differently, there may be variation in content and issuance of statutes guiding this process. Therefore, states should individually draft their own language to address state-specific implementation and regulations for administering the systems.

States should consider the following topic areas when drafting statutes related to animal tracking: confidentiality of the data, type and amount of information collected, registration requirements and guidelines, system of identification, system coordination, funding to support the system, financial requirements of participants, and interaction with non- governmental entities.

The State of Wisconsin has adopted the following statutes addressing premise registration. Wisconsin's statute is included as an example of the specific type of code that states should consider developing as they implement a tracking system in their state.

Wisconsin Statutes and Annotations. Chapter 95, Section 51.
Livestock premises registration.[12]

(1) DEFINITION.

In this section, "livestock" means bovine animals, equine animals, goats, poultry, sheep, swine, farm−raised deer, and any other kind

[12] *Livestock Premise Registration* (2004). Chapter 95. *Wisconsin Statutes & Annotations*, Section 51. Available: http://www.legis.state.wi.us/statutes/Stat0095.pdf [2/10/2006]

of animal that the department identifies by rule for the purposes of this section.

(2) REGISTRATION.

(a) Except as provided under sub. (3m), no person may do any of the following at a location in this state unless that person registers that location with the department:

1. Keep any bovine animals, equine animals, goats, sheep, swine, poultry, or farm−raised deer.

2. Keep any other kind of livestock that the department identifies by rule.

(b) A person shall register under par. (a) on a form provided by the department and shall provide all of the following information:

1. The registrant's legal name and any trade names under which the registrant keeps livestock in this state.

2. The registrant's business address.

3. The address of each location at which the registrant keeps livestock in this state.

4. The type of livestock kept at each location under subd. 3. and the type of livestock operation, using standards and guidelines from the national animal identification plan developed by the animal and plant health inspection service of the federal department of agriculture, to the extent practicable.

(3) COORDINATION. A person to whom sub. (2) applies may comply with sub. (2) as part of the registration process under s. 95.55 or 95.68 or the licensing process under s. 97.22.**(3m)** EXEMPTIONS. The department may promulgate rules specifying exemptions from sub. (2), including exemptions based on the number or type of livestock kept by a person or on the type of locations where a person keeps livestock.

(4) PREMISES CODE. (a) The department shall assign a unique identification code to each location registered under sub. (2)

(a). The department shall use a uniform system to assign codes that is reasonably designed to facilitate animal health and disease control, interstate consistency, and interstate commerce. The department shall use a system that complies with any applicable standards established by the animal and plant health inspection service of the federal department of agriculture. The department shall use premises codes that are federally allocated for premises

in this state. (b) The department shall establish and maintain an electronic data base related to livestock premises in this state. The department shall include in the data base the premises code assigned to each location under par. (a) and the registration information under this section that is associated with that premises code. The department may include in the data base global positioning system coordinates and other information that the department considers appropriate.

(5) CONFIDENTIALITY.

(a) Information that a person is required to provide to the department under sub. (2) is not subject to public inspection under s. 19.35. Except as provided in pars. (b) and (c), the department may not disclose information provided under sub. (2) to any other person or agency. (b) Paragraph (a) does not apply to information that a person is required to provide to the department under other laws.(c) The department may disclose information that a registrant provides under sub. (2) to any of the following:

1. A person to whom the registrant authorizes disclosure.

2. The animal and plant health inspection service of the federal department of agriculture, if the animal and plant health inspection service agrees not to disclose the information except in situations in which the department is authorized to disclose the information under subd. 1. or 4.

3. Any agent of the department under sub. (8).

4. Another person or agency if the department believes that the release is necessary to prevent or control disease or to protect public health, safety, or welfare. The department may disclose information under this subdivision subject to any confidentiality requirements that the department determines are appropriate under the circumstances.

(d) Any agent of the department under sub. (8) may not disclose information provided under sub. (2) except to a person to whom the registrant or the department authorizes disclosure.

(6) FUNDING. The department shall seek federal funding for the administration of this section.

(7) RULES. The department may promulgate rules for the administration of this section. The department shall promulgate rules to govern the release of aggregate information under this section by the department.

(8) CONTRACT AGENT. The department may contract with an agent to administer the registration program under this section on behalf of the department. The department may not authorize an agent to release aggregate information under this section.

b. Certifications of Veterinary Inspection / Health Papers

Certifications of veterinary inspection, more commonly called health papers, are documents that veterinarians complete certifying that animals were healthy at the time of inspection and therefore are permitted to move to a new location. Health papers can also serve as a mechanism to track the movement of animals from location to location. Some states have begun using electronic health papers, while others still use a paper-based system. Eventually the health paper system may be incorporated into animal tracking systems, but currently the health paper systems and animal tracking systems are not yet integrated. Movement of animals into, out of, and within states is regulated by each state. Therefore, state statutes should fully reflect state-specific requirements and law guiding animal movement. States should review and revise their statutory authorities related to these inspections to assure that the processes are efficient and well regulated.

The following statutory language is in place in Wisconsin to guide health paper regulation. The statute addresses the following components of health papers:

1. Only State of Wisconsin licensed veterinarians can perform the animal testing required to determine the health status of animals prior to shipments. The licensed veterinarians must provide test results to the Wisconsin Department of Agriculture, Trade, and Consumer Protection in triplicate.

2. If certificates of veterinary inspection are required for animals entering Wisconsin, the veterinarian who issues the certificate must provide a copy to the department.

3. If health certificates are also required for wild animals, the veterinarian should file a copy of the certificate with the department. Additionally the department is required to provide a copy of the certificate to the department of natural resources.

4. The statute also describes the rule-making process which further details the regulations for veterinary inspection.

Wisconsin Statutes and Annotations. Chapter 95, Section 45.

Certificates of veterinary inspection; tests for interstate shipment.[13]

(1) Tests to determine the health status of animals for the purpose of interstate shipment shall be made only by licensed graduate veterinarians approved by the department. Such veterinarians shall report the results of every such test to the department in triplicate.

(4) (a) If the department requires that a certificate of veterinary inspection accompany an animal imported into this state, the veterinarian who issues the certificate shall file a copy of the certificate with the department.

(b) If a certificate of veterinary inspection is required for a wild animal under s. 169.04 (2) (d) and (3) (a) or 169.06 (1) (d) 1. the veterinarian who issues the certificate shall file a copy of the certificate with the department of agriculture, trade and consumer protection. The department of agriculture, trade and consumer protection shall provide a copy of the certificate to the department of natural resources.

(c) The department may promulgate rules to impose requirements on the form, issuance, and filing of certificates of veterinary inspection.

(5) Any certificate of veterinary inspection prepared under this chapter or ch. 169 shall comply with any rules that are promulgated by the department.

The statute above references Chapter 169 of Wisconsin's state code. Chapter 169 addresses captive wildlife that is exposed to disease. More specifically, sections 169.04 2d and 3a and 169.06 1d discuss live wild animals that are exposed to or infected with contagious or infectious diseases, wild animals that are under other jurisdictions, and the introduction, stocking and release of wild animals.

[13] *Certificates of veterinary inspection; tests for interstate shipment* (2004). Chapter 95. *Wisconsin Statutes & Annotations*, Section 45. Available: http://www.legis.state.wi.us/statutes/Stat0095.pdf [2/10/2006]

3. Disease Investigations

The ability to perform animal health-related investigations in a timely and efficient manner is central to the disease control and emergency response process. If the statutory authorities related to conducting investigations are not written broadly and comprehensively, states may risk slowing the response process, ultimately leading to further spread of disease and greater detrimental impacts to the state, nation, and affected industries. Therefore, lead animal health authorities in each state should review their statutes related to conducting investigations to assure that their authorities are adequate.

Statutes should address the following considerations of animal disease investigations:

1. Lead animal health officials should have the statutory authority to investigate suspect disease incidents, regardless of the disease in question.

2. Lead animal health officials should have the statutory authority to enter and conduct animal health investigations on any farm or facility where animals or carcasses are held.

3. Lead animal health officials should clarify any statutes containing triggers that must be reached prior to initiating an animal disease investigation. Examples of the types of triggers referenced above include specific lists of diseases that would warrant investigations or proclamations and notifications that must be made prior to conducting the initial disease investigation. These types of statutes will certainly slow the investigation process and should be minimized whenever possible to assure prompt investigation and response.

The State of Iowa statute included below, grants the broad authorities necessary to conduct a disease investigation in a timely and efficient manner.

State of Iowa Code. Chapter 163, Section 1. Powers of the department of Agriculture and Land Stewardship[14]

> In the enforcement of this chapter the department of agriculture and land stewardship shall have power to:
>
> 6. Enter any place where any animal is at the time located, or where it has been kept, or where the carcass of such animal may be, for the purpose of examining it in any way that may be necessary to determine whether it was or is infected with any contagious or infectious disease.

B. EMERGENCY DECLARATIONS AND PROCLAMATIONS

States address declarations of emergency differently, and these differences may be partially based upon variations in animal health organizational structures within states. While some leaders of agriculture or animal health departments are appointed by their governors, others are governed by boards or even are elected officials. All of these structural and organizational differences will likely affect declaration authorities, structures, and processes.

Some states rely on a governor's proclamation of disaster emergency during an animal health emergency response, which in most states gives the governor broad powers to issue rules (such as controlling the movement of people around an incident site) and use state personnel and resources (such as digging and trenching equipment) in whatever manner necessary to control disease spread and respond to the situation. Other states have processes in place to request and grant state-level agricultural disaster declarations that activate agriculture specific resources and related authorities during agricultural emergencies.

Determining how best their state agriculture structures should be organized, for example whether agriculture officials should be elected officials or appointed by the Governor, is a decision that should be made by the citizens of

[14] *Powers of the department of Agriculture and Land Stewardship* (1999). Title 5. *Iowa Code*, Chapter 163, Section 1. Available: http://www.legis.state.ia.us/IACODE/1999SUPPLEMENT/163/1.html [2/10/2006]

each state. And this decision has a direct effect on the declaration system within each state; therefore, it is impossible to present one common suggested way for states to organize their declaration processes. But, it is important that the declaration process functions based on science, and not based on politics, in order to assure that response efforts are appropriate for the incidents at hand. States should review their declaration processes and assure that they fully understand the implications of, differences between, and the processes that warrant each type of declaration. States should clarify the following components of emergency declarations in either their state statute or rules.

A. The triggers for initiating each type of declaration.

B. The process to activate each type of declaration.

C. The content of each declaration.

D. The effect of the declaration, ie. authorities and resources that are activated under each type of declaration.

E. How the declarations differ from, as well as complement each other.

The State of Oklahoma has the ability to enact an animal disease outbreak temporary emergency declaration. This declaration is triggered by a request from the State Board of Agriculture to the Governor. This agriculture-specific declaration is separate from the Governor's general declaration of disaster emergency, and allows the State Board of Agriculture to implement disease control measures such as quarantine and euthanasia. The Oklahoma statute is included below:

Oklahoma State Code. Title 2, Chapter 6, Section 400. Animal Disease Outbreak Temporary Emergency Act: §2-6-400.*15*

§2-6-401. Animal disease threatening domestic animal population and/or public welfare – Certification – Declaration of emergency by Governor.

15 *Animal Disease Outbreak Temporary Emergency Act* (2006). Title 2. *Oklahoma State Code*, Chapter 6, Section 400. Available: http://www.lsb.state.ok.us/ [2/10/2006]

A. 1. If the State Board of Agriculture determines that a confirmed case of an animal disease in this state presents a substantial and imminent threat to the state's domestic animal population and/or to protect the public welfare, the Board shall certify the case to the Governor.

2. After receiving certification from the Board, the Governor may declare an emergency pursuant to this section for purposes of allowing the Board to establish quarantine zones of control to protect the health of domestic animals and the public welfare from disease. The Governor may declare an emergency pursuant to this section without declaring an emergency under the Oklahoma Civil Defense and Emergency Resources Management Act of 1967.

3. A declaration pursuant to this section:

a. may specify that it applies to all or certain units of the state or local government,

b. must specify the time period for which it applies, and

c. must be filed with the Secretary of State.

4. The provisions of this subsection are in addition to and do not limit authority granted to the Governor or local government officials by other provisions of law.

1. The Board may meet by electronic means without violating state open meeting laws for the purpose of declaring that a highly suspicious case of a disease in this state presents a substantial and imminent threat to the state's domestic animal population.

2. If the Board meets by electronic means for this purpose, it shall comply with the emergency meeting notice provisions of Section 311 of Title 25 of the Oklahoma Statutes and, to the fullest extent possible, provide public and media access to the meeting.

Section 311 of Title 25 of the Oklahoma Statutes was referenced in the section of statute included above. Section 331 of Title 25 addresses general guidelines for holding public meetings.

C. DISEASE CONTROL MEASURES

The following list of statutory topic areas related to disease control measures should be considered by states when reviewing and drafting their state

animal health emergency code. Each issue will be discussed in more detail throughout the rest of the section.

1. Hold Order (Voluntary Confinement)
2. Quarantine (Mandatory Confinement)
3. Condemnation / Euthanasia
4. Carcass Disposal

1. Hold Order (Voluntary Confinement)

Some states informally request that animal owners and caretakers impose a voluntary confinement of their animals. In states where this procedure is practiced, it is often used in situations where the state feels that formal quarantines are not warranted but less formal action is prudent to prevent the potential spread of disease. For example, voluntary hold orders are sometimes used during initial investigations prior to disease confirmation, when officials feel that animal owners and caretakers are fully cooperating with their requests and recommendations. However, it would seem preferable to issue quarantine orders on all farms or premises where disease is suspected or investigations are ongoing. Because quarantines are legally enforceable, states would then have the ability to prosecute those who knowingly chose to violate the orders. Should animal owners or caretakers choose to violate a voluntary hold order; the states would have no ability to prosecute the violation.

Nevertheless, if states do choose to issue hold orders, they should codify the procedure to assure common understanding of the related issuing authorities.

In a new statute that the State of Iowa is proposing in the 2006 legislative session, a hold order is defined as “a verbal request to voluntarily prevent or restrict the movement of a population of animals or animal products from the

premise where it is located."[16] The proposed statutory language Iowa is introducing in the 2006 legislative session is below.

> Proposed Iowa Code. Voluntary Confinement (Hold Order)[17]- Prior to instituting mandatory isolation or quarantine pursuant to Iowa Code 163.10, the State Veterinarian or the Secretary of Agriculture may verbally request that a herd or animal owner voluntarily confine their domestic animals.
>
> *Chapter 163.10 of the Iowa Code addresses the quarantine authorities of the State Veterinarian and Secretary of Agriculture.*

2. Mandatory Quarantine

The ability to effectively quarantine animals and animal products is vitally important during the response effort to preventing the further contamination and transmission of animal disease. While the operational procedures for issuing and enforcing quarantines should be developed within animal health emergency plans, there are many statutory components of quarantines that should be addressed in state codes. The following outline of statutory topic areas related to quarantines should be considered by states when reviewing and drafting their state animal health emergency codes.

a. Quarantine Order Issuing Authorities and Requirements to Consult and/or Notify Other State Officials that Quarantine Orders Have Been Issued.
    (1) Primary State Officials Authorized to Issue Quarantines.
    (2) Requirements to Consult Other Officials Prior to Issuing Quarantine Orders.
    (3) Requirements to Notify Other Officials After the Quarantine Order Has Been Issued.
b. Criteria for Issuing and Effects of Quarantines Orders
    (1) Triggers for Issuing Quarantine Orders
    (2) Considerations If States Choose to Statutorily List Specific Diseases that Warrant Quarantine

[16] Earl Cavanaugh, Iowa Department of Agriculture and Land Stewardship, Report to the Department [12/2005]

[17] Earl Cavanaugh, Iowa Department of Agriculture and Land Stewardship, Report to the Department [12/2005]

(3) Designating Quarantine Zones: Issuing Quarantines Based on Location or Proximity to Infected Sites

(4) Animals and Products Controlled Under a Quarantine Order

(5) Actions Prohibited Under a Quarantine Order

(6) Clarification of the Effect of a Declaration or Proclamation of Animal Health Emergency on Quarantine Orders

(7) Requiring Coordination Between Agriculture and Public Health Officials

c. Providing Notice of Quarantine

(1) Mechanism for Providing Notice

(2) Types of Information Included in the Notice of Quarantine

d. Quarantine Enforcement

e. Penalties for Non-Compliance

f. Appealing Quarantine Orders

g. Releasing Quarantine Orders

In the remainder of this section, the topics listed above will be discussed individually in greater detail. Each component of the outline will be further explored, recommendations will be presented, and examples of existing state codes addressing the specific issues will be included when possible.

a. Quarantine Order Issuing Authorities and Requirements to Consult and/or Notify Other State Officials that Quarantine Orders Have Been Issued

It is vitally important that statutes clearly designate lead officials authorized to issue quarantine orders and requirements to consult with other state officials during and after the decision making process. Doing so will prevent any delays or confusion regarding the declaration process.

(1) Primary State Officials Authorized to Issue Quarantines. Statutes should clearly identify the primary state official authorized to order quarantines of animals and animal products. This authority should rest in the

office with responsibility for animal disease control, therefore, technical expertise is coupled with the decision making authority.

States should also statutorily designate secondary representatives who are authorized to issue quarantine orders in the primary officials' absence. This designation is vital to maintaining continuity of government in the event that the primary official is unreachable or incapacitated.

The following statutory example from the state of Connecticut designates the Commissioner of Agriculture as the primary official authorized to issue quarantine orders and the Deputy Commissioner or the Commissioners authorized agent as secondary officials.

Connecticut State Code. Title 22, Chapter 433, Section 22-279. Quarantine of animals. Penalties. [18]

> (a) The Commissioner of Agriculture or his deputy or authorized agents may quarantine all animals that they have reasonable grounds to believe (1) are infected with a communicable disease, (2) do not meet import, export or disease testing requirements of the department or (3) are kept under unsanitary conditions which, in the opinion of the commissioner or his deputy or authorized agents, endanger the public health or the health of such animals.

(2) Requirements to Consult Other Officials Prior to Issuing Quarantine Orders. State statutes should also require the primary and secondary quarantine officials to consult other state officials prior to issuing quarantine orders. Because state animal health authorities are organized differently in each state, states must individually examine their own structures and determine whether the primary and secondary authorized officials should be required to consult any other officials prior to issuing quarantine orders. While requiring coordination prior to issuing quarantine orders may add an extra layer of bureaucracy, in effect slowing the process, it also creates an intrastate system of checks and balances assuring that powers to issue quarantines are applied

[18] *Quarantine of Animals* (2001). Title 22. *General Statutes of Connecticut*, Chapter 433, Section 279. Available: http://www.cga.ct.gov/2001/pub/Title22.htm [2/10/2006]

judiciously and with just cause. There is not one-correct-structure that can be applied universally; this decision can only be made by states themselves. Examples of this type of statutorily required coordination could include:

- Requiring a lead animal health official, acting as the primary quarantine official, to consult with the chief of the state agriculture department prior to issuing quarantine orders.
- Requiring the chief of the state agriculture department, acting as the primary quarantine official, to consult the governor prior to ordering a quarantine.

(3) Requirements to Notify Other Officials After the Quarantine Order Has Been Issued. This section refers to the act of notifying other officials once the decision to quarantine a site or area has been made, rather than consulting them during the decision making process as described in section b above. Again, depending upon the states organizational structure, some states could consider developing statutory requirements to notify other state officials that an order of quarantine was issued. If a statutory requirement for notification is developed, the timelines for making that notification, for example within one hour, should also be specified in the statute.

As with section b. above, this requirement will vary by state depending upon the states organizational structure. For example in states where the chief of the state animal health agency is an elected official and therefore not considered a part of the governor's cabinet, it would be important for the chief animal health official to notify the governor of the order. Prompt notification is especially important if state resources under the governor's authorities need to be activated to enforce the quarantine order. Conversely, statutorily requiring this notification may not be necessary in states where the lead official for animal health is appointed by the governor or hired by a board which is appointed by the governor. In these states, one would assume that the governor's staff is automatically notified of the initial investigation.

b. Criteria for Issuing and Effects of Quarantines Orders

Criteria for establishing quarantines, as well as quarantine limitations should be described in state statutes.

(1) Triggers for Issuing Quarantine Orders. States should statutorily identify broad triggers for issuing quarantine orders. The ability to issue a quarantine order should not be dependant upon disease confirmation or direct exposure to a confirmed disease. Rather, statutes should be broadly designed to support issuance without laboratory confirmation, as swift response will prevent the unnecessary spread of disease that would likely occur if laboratory confirmation of disease were a required trigger for issuance. The ability to order quarantines should be based on reasonable suspicion supported by evidence, clinical symptoms, epidemiology, preliminary research and investigations. Doing so would ensure that states have the ability to take "preventative" quarantine measures rather than simply responding after a disease has been confirmed.[19] The section of California's state code included below broadly identifies triggers for issuing quarantine orders:

California Food and Agriculture Code. Chapter 3, Article 3, Section 9562. Establishment of Quarantine[20]

> ..,the State Veterinarian shall impose a quarantine if he or she believes, upon any basis reasonably supportable by standard epidemiological practice or credible scientific research, that a population of domestic animals or food product from animals has contracted, or may carry, an illness, infection, pathogen, contagion, toxin, or condition that, without intervention, could transmit an illness that could kill or seriously damage other animals or humans, including, in addition to the original condition, those clinically plausible secondary illnesses, infections, pathogen contagions, toxins, or conditions arising from the effects of the original.

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[19] Earl Cavanaugh, Iowa Department of Agriculture and Land Stewardship, Report to the Department [12/2005]

[20] *Establishment of Quarantine* (2005). *California Food and Agriculture Code,* Chapter 3, Article 3, Section 9562. Available: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=fac&group=09001-10000&file=9561-9574 [2/10/2006]

(2) Considerations If States Choose to Statutorily List Specific Diseases that Warrant Quarantine. If current state statutes list specific diseases for which quarantines can be issued, states should consider doing away with the list format, as it may narrow authorities or cause confusion during the response effort. At a minimum, state statutes should incorporate language allowing flexibility to quarantine yet unknown disease threats, such as emerging infectious diseases, diseases that are not currently in the United States, or any infectious disease or condition that causes harm to the animals, industry, or economy.

(3) Designating Quarantine Zones: Issuing Quarantines Based on Location or Proximity to Infected Sites. Statutes should incorporate language allowing quarantines to be established based upon location or proximity to infected sites and / or animals. State infectious animal disease emergency response plans commonly describe a process in which the primary quarantine official will quarantine a designated radius around infected animals or contaminated facilities. Therefore, it is important that states have the statutory authority to issue this type of quarantine based on proximity to the infectious agent. The section of California code below describes quarantine establishment based on this principle.

California State Code. Chapter 3, Article 3,
Section 9564. Establishment of Quarantine[21]

> If it is necessary to restrict the movements of animals pursuant to Section 9562, the State Veterinarian may fix and proclaim the boundaries of a quarantine area in lieu of separate, individual orders issued to each owner pursuant to Section 9562. While the boundaries are in force, it is unlawful for any person to move or allow to be moved any such animals from or within the boundaries of the quarantine area, unless that person is authorized to do so by the State Veterinarian.

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[21] *Establishment of Quarantine* (2005). *California Food and Agriculture Code*, Chapter 3, Article 3, Section 9564. Available: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=fac&group=09001-10000&file=9561-9574 [2/10/2006]

Section 9562 discusses triggers on which the State Veterinarian in California can base issuance of a quarantine order.

(4) Animals and Products Controlled Under a Quarantine Order. Because disease can be transmitted via many different mechanisms depending upon the disease in question, quarantine statutes should be written broadly to control the movement of products, as well as, all animals that could serve as disease transmitters. Statutes should encompass all animals; including companion animals, exotic animals, livestock/poultry, and wildlife species under quarantine orders. Statutes should also enable the quarantine of animal products, potentially contaminated materials, and equipment. The California statute included below clearly identifies the products subject to quarantine orders.

California State Food and Agriculture Code,
Chapter 3, Article 3, Section 9562 (2)[22]

> In furtherance of the objectives of the quarantine, the State Veterinarian may impose restrictions not only on the affected animals themselves and the uses to which those animals may be put, but on products produced from, by, or with those animals in order to minimize the risk or spread of food-borne illness.

(5) Actions Prohibited Under a Quarantine Order. Statutes should clearly identify the specific types of actions that quarantine orders control; such as ordering or prohibiting movement, and mandating the segregation and isolation of animals, vehicles, materials, and equipment subject to the order of quarantine. The section of California Code included below specifically defines the mandated actions directed under a quarantine order:

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[22] *Establishment of Quarantine* (2005). *California Food and Agriculture Code,* Chapter 3, Article 3, Section 9562. Available: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=fac&group=09001-10000&file=9561-9574 [2/10/2006]

California State Food and Agriculture Code,
Chapter 3, Article 3, Section 9562.[23] (3)

The State Veterinarian's quarantine powers set forth in this section expressly include the power to order movement, segregation, isolation, or destruction of animals or food products, as well as the power to hold animals or food products in place.

California State Food and Agriculture Code,
Chapter 3, Article 3, Section 9569.[24]

In addition to actions that may be directed by the State Veterinarian pursuant to Section 9562, the State Veterinarian may:

(a) Regulate, restrict, or restrain the movements of persons, vehicles, farm equipment, farm and dairy products, and other property from or into the quarantine area, or from place to place within it, during the existence of the quarantine.

(b) Impose, as a condition to travel through or within the quarantine area, that no person or vehicle which is permitted to travel on any road or highway shall depart from the road or highway while within the quarantine area.

Section 9562 discusses triggers on which the State Veterinarian in California can base issuance of a quarantine order.

(6) Clarification of the Effect of a Declaration or Proclamation of Animal Health Emergency on Quarantine Orders. While some states currently require that a declaration or proclamation of animal health emergency be in place prior to issuing quarantine orders, it is recommended that these actions be statutorily addressed separately. Requiring a declaration or proclamation of emergency to be in place prior to issuing a quarantine order, will likely slow the disease control process and lead to further disease spread during the time spent coordinating the declaration or proclamation.

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[23] *Establishment of Quarantine* (2005). *California Food and Agriculture Code*, Chapter 3, Article 3, Section 9562. Available: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=fac&group=09001-10000&file=9561-9574 [2/10/2006]

[24] *Establishment of Quarantine* (2005), California *Food and Agriculture Code*, Chapter 3, Article 3, Section 9562. Available: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=fac&group=09001-10000&file=9561-9574 [2/10/2006]

(7) Requiring Coordination Between Agriculture and Public Health Officials. Statutes should mandate the coordination of animal health and public health quarantines during disease incidents with zoonotic potential. Requiring agriculture and public health officials to coordinate their efforts during a zoonotic disease response will help to assure that gaps are addressed and that resources are maximized.

c. Providing Notice of Quarantine

State statutes should clearly describe both the mechanisms that will be used to provide notice of quarantine orders and the type of information that will be included in quarantine orders. Clearly defining this information will establish a structured and consistent process for issuing quarantine orders.

(1) Mechanism for Providing Notice. Statutes should describe accepted methods for providing notice to those affected by quarantines. Statutes should identify methods to notify specific individuals, as well as large groups of people whose animals, animal products, vehicles, facilities, and equipment may be located within designated quarantine areas. Several mechanisms for making notice should be incorporated into statutes to assure notification capabilities in various situations.

Some states existing statutes list specific mechanisms to notify those affected by quarantine orders, such as via the newspaper, or in writing. States should review their existing notification statutes and assure that the mechanisms listed include all current information-sharing pathways such as: in person, in writing, via the television and/or radio, and through emergency notification mechanisms. Or alternatively, statutes could simply state that notifications will be made via the current technologies that are accessible to the state.

(2) Types of Information Included in the Notice of Quarantine. Statutes should identify the types of information contained within the notice of quarantine. Examples include:

1. Reason for issuing the quarantine

2. Date and time of issuance

3. Name of the owner of the population of animals or animal product, or the approximate area or premise under the order

4. Specific animals or products regulated under the restriction

5. Requirements, prohibitions, and procedures

6. Processes to apply for specific permits, if states anticipate issuing permits for limited animal and animal product movement, to support animal welfare or movement to slaughter for example.

7. Instructions for those opposing the process, to appeal quarantine orders.

8. The signature of the person issuing the order

Examples of quarantine notification language can be seen in the following excerpt from Texas statutes.

Texas Statutes Agriculture Code,
Title 6, Chapter 161, Section 063. [25]

> § 161.063. CONTENTS OF NOTICE. (a) A quarantine notice must state the requirements and restrictions under which animals may be permitted to enter this state or to be moved from a quarantined area within this state. If the seriousness of the disease is sufficient to warrant prohibiting the movement of animals, the notice must state that the movement is prohibited. The quarantine notice must state the class of persons authorized by the commission to issue certificates or permits permitting movement.
>
> (b) A quarantine notice must state the cause for which the quarantine is established, whether for infection or for exposure.
>
> (c) A quarantine notice must describe the area or premises quarantined in a reasonable manner that enables a person to

[25] *Contents of Notice* (2003).Title 6. *Texas State Agriculture Code*, Chapter 161, Section 063. Available: http://www.capitol.state.tx.us/statutes/agtoc.html. [2/10/2006]

identify the area or premises, but is not required to describe the area or premises by metes and bounds.

(d) If the quarantine regulates or prohibits the movement of a carrier or potential carrier of a disease, the commission may prescribe any exceptions, terms, conditions, or provisions that the commission considers necessary or desirable to promote the objectives of this chapter or to minimize the economic impact of the quarantine without endangering those objectives or the health and safety of the public. Any exceptions, terms, conditions, or provisions prescribed under this subsection must be stated in the quarantine notice.

d. Quarantine Enforcement

State statutes should specify who has the authority to enforce quarantine orders. It is anticipated that agriculture officials will require assistance from local and state law enforcement personnel to operationally enforce quarantine orders, making it important to define this cooperation statutorily. The following excerpt from Colorado's state statute addresses the use of law enforcement to enforce quarantine orders.

Colorado Statutes: Title 35, Article 50, Section 110. Quarantine established - enforced - penalty.(1) [26]

Whenever the state agricultural commission or its authorized representative deems it necessary to quarantine any premises, county, district, or section of the state for the purpose of preventing the spread of any infectious or contagious disease among the livestock within the state, the said commission has the authority, through its members, officers, or inspectors, to call on all sheriffs or other peace or police officers of any county within the state to assist in maintaining such quarantine and to arrest anyone who may violate such quarantine or any rules or regulations made by said commission for the purpose of maintaining such quarantine, and it is the duty of all sheriffs or other peace officers to act in such cases when so called upon, and they shall be allowed such recompense as is provided by statute for similar services.

[26] *Quarantine established – enforced – penalty* (2005). Title 35. *Colorado Statutes*, Article 50, Section 101. Available: http://198.187.128.12/colorado/lpext.dll?f=templates&fn=fs-main.htm&2.0 [2/10/2006]

Another option to address this issue would be to statutorily indicate that the Governor has the authority to call upon all state and local officials to provide support for the enforcement of a quarantine order.

e. Penalties for Non-Compliance

While some states have chosen to simply issue flat rate fines for violators, others have developed procedures for judging the severity of the violation and penalizing appropriately. States should review their civil and criminal penalties for violating orders of quarantine and determine whether their current statutes are strong enough deterrents for violators. It is recommended that states consider incorporating strong civil and criminal penalties for violations of quarantine orders. The excerpt below from the state of California Food and Agriculture Code details their penalties for violators.

California Food and Agriculture Code,
Chapter 3, Article 3, Section 9574. [27]

> (a) Any person who negligently or intentionally violates any state or federal law or regulation, including any quarantine regulation, by importing any animal or other article, which by virtue of being pest infested or disease infected, causes an infestation or infection of a pest, animal, or disease, or causes an existing infestation to spread beyond any quarantine boundaries is liable civilly in a sum not to exceed twenty-five thousand dollars ($25,000) for each act that constitutes a violation of the law or regulation.
>
> (b) The Attorney General, upon request of the State Veterinarian, shall petition the superior court to impose, assess, and recover the sum imposed pursuant to subdivision (a). In determining the amount to be imposed, the court shall take into consideration all relevant circumstances, including, but not limited to, the extent of harm caused by the violation and the nature and persistence of the violation.
>
> (c) The remedy under this section is in addition to, and does not supersede or limit, any and all other remedies, civil or criminal, that are otherwise available to the state.

[27] *Establishment of Quarantine* (2005). *California Food and Agriculture Code*, Chapter 3, Article 3, Section 9574. Available: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=fac&group=09001-10000&file=9561-9574 [2/10/2006]

(d) Any funds recovered pursuant to this section shall be deposited in the Department of Food and Agriculture Fund for emergency pest or disease exclusion, detection, eradication, and research of agricultural plant or animal pests or diseases. These funds may be allocated to cover costs related to the enforcement of this division. These funds are in addition to any funds appropriated for those purposes pursuant to Section 224.

f. Appealing Quarantine Orders

States should develop procedures for affected livestock owners and citizens to appeal quarantine orders, and the specific requirement for procedures should be addressed in statute or administrative rules. Developing an appeals process is important, because quarantines will cause significant disruption and economic hardship for those affected. Therefore, livestock owners and businesses affected by orders should have a mechanism to challenge orders they feel are inappropriate and/or unjust. The excerpt below which provides an example of a quarantine appeals process was taken from Georgia's state code.

Georgia State Code. 2-2-9.1[28]

(d) Any registrant, licensee, permittee, applicant, equine owner, livestock owner, dog or cat owner, exotic and pet bird owner, or farmer of crops or livestock, chickens, or other animals aggrieved or adversely affected by any order or action of the Commissioner to include the issuance, suspension, denial, or revocation of a registration, license, permit, or application; impoundment; quarantine; or stop sale, stop use, or stop removal order upon petition within 30 days after the issuance of such order or the taking of such action, shall have a right to a hearing before a hearing officer appointed or designated for such purpose by the Commissioner. The decision of the hearing officer shall constitute an initial decision of the Department of Agriculture, and any party to the hearing, including the Commissioner, shall have the right to final agency review before the Commissioner in accordance with Chapter 13 of Title 50, the 'Georgia Administrative Procedure Act,' and the provisions of this chapter.

(e) Where a statute for which the Commissioner has responsibility for administration or enforcement or a provision of Article 1 of

[28] (2005). Title 2. *Georgia State Code*, Chapter 2, Section 9.1. Available: http://www.legis.ga.gov/legis/GaCode/data/2-2-9.1.htm [2/10/2006]

> Chapter 13 of Title 50 provides for different administrative procedures in providing for a notice and opportunity to be heard other than those specified in this Code section, the Commissioner may elect which procedure to be used on a case-by-case basis.
>
> (f) In the event the Commissioner asserts in response to the petition before the hearing officer that the petitioner is not aggrieved or adversely affected, the hearing officer shall take evidence and hear arguments on such issue and thereafter make a ruling on such issue before continuing with the hearing. The burden of going forward with evidence on such issue shall rest with the petitioner. The decision of the hearing officer shall constitute the initial decision of the Commissioner; and any party to the hearing, including the Commissioner, shall have the right for final agency review before the Commissioner in accordance with Chapter 13 of Title 50.

g. Releasing Quarantine Orders

Statutes should describe the mechanisms in which quarantines will be released. Statutes should discuss reasons why quarantines would be released, such as confirmation that disease is not present, the threat of disease is no longer present, or all facilities have been properly decontaminated. Statutes should also designate the officials who are authorized to release the quarantine.

The following excerpt from the North Carolina Administrative Code discusses quarantine release generally, simply stating the quarantine can be cancelled by a notice from the State Veterinarian after sick and dead animals are disposed of and the premise has been cleaned. The entire section of code is below.

North Carolina General Statutes, Chapter 106, Article 34, Section 401. State Veterinarian authorized to quarantine.[29]

> Such quarantine shall remain in effect until cancelled by official written notice from the State Veterinarian or his authorized

[29] *State Veterinarian authorized to quarantine* (2005). Chapter 106. *North Carolina General Statutes*, Article 34, Section 401. Available: http://www.ncga.state.nc.us/EnactedLegislation/Statutes/HTML/BySection/Chapter_106/GS_106-304.html [2/10/2006]

representative and such quarantine shall not be cancelled until any sick or diseased animal has been properly disposed of and the premises have been properly cleaned and disinfected.

3. Condemnation

States should possess the statutory authority not only to inspect and quarantine, but also to condemn animals. Currently, some state statutes address condemnation of animals on a disease specific basis, for instance specifically related to Classical Swine Fever (Hog Cholera) and Mycobacterium bovis (bovine tuberculosis). This can be problematic if state statutes do not also allow condemnation of all diseases of concern, including new and emerging diseases. Additionally, some states may choose to combine condemnation with their code section on quarantine. Regardless of where the statute addressing condemnation is located, states must assure that authorities are written clearly and broadly to authorize condemnation of animals suspected to be diseased, confirmed to be diseased, and potentially exposed to disease.

Making payment to the animal owners for the animals that are condemned and destroyed, called indemnity payments, will be an important component to seizure and condemnation. Indemnity will be addressed in the following section, but is mentioned here because of the close relationship between the two sections of statute. The State of Wisconsin, Department of Agriculture, Trade and Consumer Protection has adopted the following language related to condemnation of disease or exposed animals.

Wisconsin Statutes and Annotations. Chapter 95, Section 31, Condemnation of diseased animals.[30]

(1) The department may condemn animals that are affected with or exposed to a contagious or infectious disease if the department determines that it is necessary to do so to prevent or control the spread of the disease. Condemned animals shall be slaughtered or destroyed as directed by the department.

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[30] *Condemnation of Diseased Animal*s (2004). Chapter 95. *Wisconsin Statutes and Annotations*, Section 31. Available: http://folio.legis.state.wi.us/cgi-bin/om_isapi.dll?clientID=59204693&infobase=stats.nfo&jump=ch.%2095 [2/10/2006]

4. Carcass Disposal

Because infectious animal disease outbreaks may necessitate euthanizing and disposing of animals, states should statutorily assign lead agencies to address disposal of carcasses. The lead agency should be charged with developing the mechanisms and procedures to coordinate and direct carcass disposal during animal health emergencies.

In California, the State Veterinarian is statutorily charged with determining the proper disposal of animals and animal products.

California Food and Agriculture Code Chapter3, Article 3, Section 9569. Establishment of Quarantine.[31]

> In addition to actions that may be directed by the **State Veterinarian** pursuant to Section 9562, the **State Veterinarian** may: (e) Require a proper disposal to be made of the hide and carcass of any animal which is destroyed.

However, in many other states the state environmental agency is charged with carcass disposal, which seems most efficient as they have the in-house knowledge of the environmental factors that influence disposal options.

D. PUBLIC INFORMATION REGARDING ANIMAL HEALTH EMERGENCIES

Public information and risk communications are essential components of animal disease preparedness and response. During emergencies, the public and agriculture stakeholders must have access to current and factual information. Having this access will not only minimize fears and mitigate rumors, but will also help publicize emergency regulations and recommendations. Risk communications may also serve to empower the public and agriculture stakeholders to take action to protective action to prevent the further spread of disease.

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[31] *Establishment of Quarantine* (2005). *California Food and Agriculture Code*, Chapter 3, Article 3, Section 9569. Available: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=fac&group=09001-10000&file=9561-9574 [2/10/2006]

During a multi-agency emergency response effort, public information and risk communications should be directed by the incident or unified command structure. The release of public information should be coordinated through a joint information center. States should consider enacting statutes requiring coordination of public information and risk communications through joint information centers during emergency response.

In non-emergency situations, there should either be one lead agency responsible for distributing animal disease public information or multiple agencies should be required statutorily to coordinate the release of public information. States should individually determine whether specific statute is necessary based upon their internal politics and organization. The statutory example below, from the State of Florida, designates the department of agriculture to be the spokesperson for animal health issues.

Florida Statutes. Chapter 585, Title 14. Agriculture, Horticulture, and Animal Industry. Information concerning animal disease[32]

> 585.14 Information concerning animal diseases.--The department shall collect, preserve, and disseminate information concerning infectious, contagious, communicable, and other diseases of animals, their origin, locality, nature, appearance, manner of dissemination or contagion, and method of treatment required for the successful eradication and control thereof.

E. INDEMNITY AND FISCAL CONSIDERATIONS

Indemnity refers to a financial payment made to a livestock producer to compensate that producer for livestock that are destroyed due to disease or illness. Indemnity is a vital part of the disease control process because indemnity payments serve as an important financial incentive for producers and caregivers to report disease incidence to state and federal regulators. Some

[32] *Information concerning animal diseases* (2005). Title 35. *Florida Statutes*, Chapter 585, Section 14. Available: http://www.flsenate.gov/Statutes/index.cfm?App_mode=Display_Statute&URL=Ch0585/ch0585.htm [2/10/2006]

states have developed state supported or agriculture industry supported indemnity programs, and therefore state statutes should describe the guidelines of these programs. There are also federal and state/federal cost sharing indemnity programs; therefore it is important that statutes clearly differentiate between the programs and identify the requirements and triggers for each.

California state code describes its state reimbursement processes.

California Food and Agriculture Code, Section 9591-9595. [33]

9591. Except as otherwise provided in Section 9595, if any animal or property is destroyed pursuant to Section 9569, the owner of the animal or property shall be paid an amount of money as provided in Section 9593.

9592. The state may contribute toward the payment for the animal or property destroyed if either of the following occurs:

(a) The United States agrees to share equally in the payment.

(b) The State Veterinarian finds that the failure to dispose of the animal, animal product, or property would be or would have been detrimental to human or animal health or the welfare of that animal industry.

9593. (a) The value of the animal or property prior to its destruction for which contribution is made pursuant to subdivision (a) of Section 9592 shall be determined by an appraisal process agreed upon by the secretary of the Department of Food and Agriculture and the Secretary of the United States Department of Agriculture.

(b) The value of the animal or property prior to its destruction for which contribution is made pursuant to Section 9592 shall be expeditiously determined by the secretary in consultation with the affected industry.

(c) Nothing in this provision shall be construed to require appraisal or payment before destruction is carried out.

9594. The department may pay from any money which is available for the support of the department all sums that are due or to become due from the state to owners of animals or property which

[33] *Establishment of Quarantine* (2005). *California Food and Agriculture Code*, Chapter 3, Article 3, Section 9562. Available: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=fac&group=09001-10000&file=9561-9574 [2/10/2006]

> is taken, destroyed, or otherwise disposed of pursuant to any provision of this code that relates to the control, prevention, or eradication of disease in animals.
>
> 9595. Indemnity payments provided by this division shall not be paid for any animal or property which is taken, destroyed, or otherwise disposed of pursuant to any provision of this code that relates to the control, prevention, or eradication of disease, if the owner is in violation of any quarantine order issued pursuant to this division or any regulation adopted pursuant thereto.

In addition to indemnity payments, statutes should clarify animal owner and state responsibilities related to expenses accrued during the quarantine, euthanasia, and carcass disposal process. There are many variables that influence financial responsibility during the disease control process, all the more reason that the responsibilities should be clearly identified in state statute. The State of Minnesota has statutorily described the anticipated financial responsibilities of the stakeholders in multiple response scenarios.

Minnesota Statutes, Expenses of killing, burial, and quarantine; lien, Chapter 35, Section 12.[34]

> The expense of killing and burial or destruction of a diseased animal, if the killing was ordered by the board, must be borne by the board. The expense of quarantine, if the animal is taken from the possession of its owner, must be defrayed by the state. If a quarantined animal is left upon the premises of its owner or keeper, that person shall bear the expense. If an animal is quarantined while being shipped into the state, the expense must be borne by the owner or keeper. If the owner or keeper of any animal becomes liable for an expense incurred by the board under this chapter, the board has a lien on the animal and may also maintain an action for the amount.

F. WILDLIFE CONSIDERATIONS

Because many animal diseases, such as Foot and Mouth Disease (FMD), are infectious to both domestic animals and wildlife, such as deer in the case of FMD, states must clearly identify the agencies/entities responsible for addressing

[34] *Expenses of killing, burial, and quarantine; lien* (2004). Chapter 35. *Minnesota Statutes,* Section 12. Available: http://www.revisor.leg.state.mn.us/stats/35/12.html [2/28/2006]

wildlife considerations in animal disease emergencies. The agency responsible for wildlife considerations during animal disease emergency response efforts should be the same agency with responsibilities for wildlife health during non-emergency situations. Some states define responsibilities statutorily and others may identify them in state response plans. Regardless of how states choose to designate the responsibilities, it is important that agencies understand their responsibilities, and are prepared to respond to animal health emergencies that cross between the domestic animal and wildlife populations.

G. ORDERS OF EMBARGO

States periodically issue orders of embargo that prohibit the importation of specific animals and animal products into the state, from areas of the country or other states where disease or contamination is suspected or confirmed. Issuing embargoes often complicates matters on the national level when dealing with importation and exportation of products to other counties. However, states have the prerogative to issue orders of embargo to control animal and animal product movement into their respective states. States should review their statutes related to embargoes to ensure that authorities are clearly delineated and broad enough to address all types of animals and animal products.

In the state of California, the State Veterinarian has the authority to issue embargos on animals and animal products.

California Food and Agriculture Code, Establishment of Quarantine, Chapter 3, Article 3, Section 9570.[35]

> If the State Veterinarian invokes Section 9562, and the importation of animals, animal products, or other property from any state, territory, or foreign country may transmit, carry or, disseminate the illness, infection, pathogen, contagion, toxin, or condition designated pursuant to Section 9562, the State Veterinarian shall prescribe the conditions, if any, under which these animals, animal products, or property may be imported into this state.

[35] *Establishment of Quarantine* (2005). *California Food and Agriculture Code*, Chapter 3, Article 3, Section 9570. Available: http://www.leginfo.ca.gov/cgi-bin/displaycode?section=fac&group=09001-10000&file=9561-9574 [2/10/2006]

H. FINANCIAL CONSIDERATIONS OF RESPONSE EFFORTS

Financial considerations of response efforts should be a central concern to states in preparing for animal health emergencies. State statutes should address mechanisms to pay for agriculture specific response-related expenses.

Most states have state emergency funds designated to pay for response actions during large scale state emergencies, and some state animal health agencies also have emergency funds dedicated for animal health emergency response expenses. While the federal government has the authority to reimburse for some types of disease response depending upon the disease and scale of the incident, states must also have mechanisms in place to pay for immediate response actions. This is especially important in situations where there may not be federal declarations in place or while federal declarations are being processed and federal funding is not yet available.

All funding mechanisms need to be clearly delineated in statute to ensure that there is no confusion and that there is clear distinction between the trigger levels to initiate each source of funds.

I. INTERSTATE COORDINATION

States have a mechanism to share resources and personnel with other states in emergencies. This mechanism is called the Emergency Management Assistance Compact (EMAC), to which 49 states, the District of Columbia, Puerto Rico and the Virgin Islands are signatories.[36] A requirement of joining EMAC is ratifying common compact language in each state's statute. This discussion is included to assure that state departments of agriculture and animal health officials are aware of the legislation and mechanism to share and draw resources. This discussion is also included to remind states that as they are reviewing their statutes related to animal health emergency response, they

[36] *Emergency Management Assistance Compact*. Available: http://www.emacweb.org/ [2/10/2006]

should keep the EMAC process in mind and write statutes with the flexibility to share resources, such as their volunteer veterinary teams, through the well established EMAC process.

J. VOLUNTEER VETERINARY TEAMS

As states develop state-specific volunteer veterinary response structures to bolster their state response capacities, states should develop statutes to address the volunteer structures. States should not rely on federal programs to pay their volunteer veterinary teams or address liability and worker compensation. Rather, states should create their own structures and protections for their state's volunteer veterinary team. States should specifically address team call up, liability, workers compensation, reporting authorities, sharing of veterinary teams with others states through EMAC, and financial considerations in their statutes. Developing these state statutes will not only provide added protection for state volunteers, but will also ensure that states can activate their volunteer structures to response to lesser emergencies, which may not warrant federal action but which state animal health authorities may need assistance in resolving.

The State of Iowa has adopted the following statutory authorities to address administration of their volunteer veterinary structures.

State of Iowa Code: Sec. 2. 163.3A VETERINARY EMERGENCY PREPAREDNESS AND RESPONSE.[37]

> 1. The department may provide veterinary emergency preparedness and response services necessary to prevent or control a serious threat to the public health, public safety, or the state's economy caused by the transmission of disease among livestock as defined in section 717.1 or agricultural animals as defined in section 717A.1. The services may include measures

[37] *Veterinary Emergency Preparedness and Response* (2005). Title 5. *Iowa Code*, Subtitle 2, Chapter 163, Section 2. Available: http://www.legis.state.ia.us/IACODE/1999SUPPLEMENT/163/3.html [2/10/2006]

necessary to ensure that all such animals carrying disease are properly identified, segregated, treated, or destroyed as provided in this Code.

2. The services shall be performed under the direction of the department and may be part of measures authorized by the governor under a declaration or proclamation issued pursuant to chapter 29C. In such case, the department shall cooperate with the Iowa department of public health under chapter 135; and the department of public defense, homeland security and emergency management division; and local emergency management agencies as provided in chapter 29C.

3. The secretary or the secretary's designee shall appoint veterinarians licensed pursuant to chapter 169 or persons in related professions or occupations who are qualified, as determined by the secretary, to serve on a voluntary basis as members of one or more veterinary emergency response teams. The secretary shall provide for the registration of persons as part of the appointment process. The secretary may cooperate with the Iowa board of veterinary medicine in implementing this section.

4. a. A registered member of an emergency response team who acts under the authority of the secretary shall be considered an employee of the state for purposes of defending a claim on account of damage to or loss of property or on account of personal injury or death under chapter 669. The registered member shall be afforded protection under section 669.21. The registered member shall also be considered an employee of the state for purposes of disability, workers' compensation, and death benefits under chapter 85.

b. The department shall provide and update a list of the registered members of each emergency response team, including the members' names and identifying information, to the department of administrative services. Upon notification of a compensable loss suffered by a registered member, the department of administrative services shall seek funding from the executive council for those costs associated with covered benefits.

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III. CONCLUSION

Many of the state statutes that were reviewed prior to and during the writing of this thesis failed to comprehensively address authorities needed during animal health emergencies. For instance consider quarantine authorities, although many state statutes mentioned the issue of quarantine, few addressed all of the topic areas outlined in this thesis. While some states like Colorado actually describe how agriculture entities will work with law enforcement officers to enforce quarantines, other states do not address the issue at all.[38] And while making notice of a quarantine order is discussed in many state statutes, in several of the reviewed statutes, the authorized mechanisms for making notifications are dated, such as putting an announcement in the local newspaper, and should be updated to be consistent with current technology and facilitate rapid notification of producers affected by the orders. Finally, few states had mechanisms in place for farmers and producers to appeal quarantine orders.[39]

All of these findings strengthen assumption on which this thesis is based: Because many state statutes are dated and incomplete, an outline of topic areas that states should consider when reviewing and revising their statutory authorities related to animal health emergencies should be developed. This thesis attempts to provide states with that suggested outline of topic areas that should serve as a solid starting point for their review and revision process.

There is not a uniform statutory model that can be applied universally to all fifty states due to the significant variations in the ways state animal health regulatory officials are organized. That is why this thesis merely attempts to provide the outline of topic areas that each state needs to address for itself, rather than presenting universal language.

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[38] *Quarantine established – enforced – penalty* (2005). Title 35. *Colorado Statutes*, Article 50, Section 101. Available: http://198.187.128.12/colorado/lpext.dll?f=templates&fn=fs-main.htm&2.0 [2/10/2006]

[39] Katelyn Romeo, Research and report submitted to the United States Department of Agriculture [8/29/2005]

The discussions embedded throughout chapter two were meant to provide explanations of each topic area and examples of existing statutes that address the issues raised in each. Attachment 1 simplifies the topic areas into succinct questions that states can ask themselves during their review and revision process. Attachment 2 synthesizes the discussion in chapter two into succinct recommendations that state should consider addressing statutorily.

This thesis was designed to be a simple and straightforward tool for states to use in analyzing and updating their current statutes. It is by no means meant to be the entire solution, but rather is intended to serve as a starting point. If states hope to respond quickly and efficiently to animal health emergencies, authorities must be clearly delineated and comprehensively written. It is the authors hope, that this thesis will help states update and add to their statutes, ultimately improving their response to animal health emergencies. In addition, revision of the statutes will eliminate inefficiencies that may lead to delayed response effort, and will preserve local, state, and federal government resources and funding.

APPENDIX 1:

The following questions may be used as a starting point to review states' statutes for animal health emergencies and identify areas that could be strengthened or clarified.

Measures to detect and track animal health emergencies

1) Is the state's list of mandatory reportable diseases comprehensive and current?

2) Does the mandatory reportable disease statute have the flexibility to quickly and easily incorporate new threats or emerging diseases as they develop?

3) Is it clear who is mandated to report suspicions of disease under the statute? Is the current list comprehensive enough?

4) Are the procedures describing how the entities discussed in question 3, should report disease to the state clearly delineated?

5) Is the mechanism to enforce reporting regulations and issue penalties for failing to report disease clear and appropriate?

6) Does the statute clarify when animal health officials should and are required to notify other agencies that a disease report has been made?

7) Does the statute adequately address the implementation and regulation of animal tracking systems in the state, ie. the state's regulation of premise registration?

8) Does the statute adequately address regulation of health papers?

9) Does the statute clarify who has the authority to conduct and perform animal health-related investigations? Are the statutory authorities written broadly enough?

Emergency Declarations and Proclamations

1) Are the statutes clear regarding which types of declarations should be made during animal health emergencies?

2) Are the triggers for each type of declaration clearly presented in the statute?

3) Is the process for activating each type of declaration described in statute?

4) Is the content and impact of each type of declaration clearly identified?

5) Are the differences between each type of declaration clearly presented?

Disease Control Measures

1) Does the state issue voluntary hold orders? If so does the statute accurately address this action?

2) Is it clear who within the state has the primary authority to issue quarantine orders? And who is authorized to issue quarantine orders in the primary official's absence?

3) Does the statute clarify whether requirements for the primary and secondary officials to consult other officials in the decision making process exist?

4) Does the statute clarify requirements for the primary and secondary officials to notify other officials that the decision to quarantine has been made?

5) Does the statute clarify any triggers that must be in place prior to issuing quarantine orders?

6) Does the statute allow flexibility to issue quarantines for any diseases of economic and public health concern to the state?

7) Does the statute discuss designating quarantines based on location or proximity to infected sites?

8) Does the statute address control of both animals and animal product movement?

9) Does the statute clarify the actions prohibited under a quarantine order?

10) Does the statute clarify the effect of a declaration or proclamation of animal health emergency on quarantine orders?

11) Does the statute clarify required coordination between agriculture and public health officials during quarantines?

12) Does the statute consider requirements for providing notice of a quarantine order to affected parties?

13) Does the statute define mechanisms for providing notice of a quarantine order and the types of information that should be included on the notice?

14) Does the statute address how the quarantine will be enforced, such as required coordination with state and local law enforcement officials?

15) Does the statute address penalties for non-compliance with quarantine regulations?

16) Does the statute address mechanisms to release a quarantine order?

17) Does the statute address mechanisms to appeal a quarantine order?

Public Information Regarding Animal Health Emergencies

1) Does the statute clarify how public information regarding animal health emergencies should be released pre-incident, as well as during the incident?

Indemnity

1) Do statutes clarify how indemnity payments will be made to producers?

Wildlife

1) Does the statute address who is responsible for addressing wildlife issues during animal health emergencies and the related responsibilities in doing so?

Orders of Embargo

1) Does the statute address orders to embargo, such as who has the authority to order embargos and what is regulated under an embargo?

Financial Considerations

1) Does the statute address mechanisms to pay for agriculture-specific response related expenses?

Interstate Coordination

1) Do statutes consider the use of EMAC to share resources and personnel with other states during emergencies?

Voluntary Veterinary Teams

1) Do statutes address issues related to volunteer veterinary response structures, such as call up, liability, workers compensation, sharing teams with other states, and compensation?

APPENDIX 2: STATUTORY RECOMMENDATIONS

Measures to detect, report, and track animal health emergencies

A) Mandatory Disease Reporting

i) Lists of Reportable Diseases:

- Mandatory disease reporting lists should be updated and comprehensive.
- States should statutorily develop processes to allow for the immediate addition of diseases to the mandatory disease reporting list in emergency situations, if even on a temporary basis, to prevent having to go through the rule-making process during an emergency response operation.

ii) Entities Mandated to Report Disease:

- States should statutorily define "who" is mandated to report suspicions of disease. This list should include animal owners, animal caretakers, veterinarians, and laboratories.

iii) Reporting Mechanism:

a) Statutes should designate the entity to which disease reports should be submitted, this should be the lead animal health official in the state or their designee.

b) Statutes should identify acceptable methods to submit reports, for example consistent with the current technologies available to the state.

c) Statutes should define acceptable timelines for reporting, such as within 24 or 48 hours of suspecting disease.

iv) Reporting Enforcement and Penalties for Non-Compliance

Statutes should develop harsh penalties for failing to report disease. These penalties may deter animal owners, caregivers, veterinarians, or laboratories from knowingly choosing not to promptly report cases or suspected cases of disease.

v) Interagency and Cross-Jurisdictional Disease Notification Requirements.

Statutes should specify conditions in which the lead animal health official should contact other state and federal officials to notify them that a disease report has been made. Likewise statutes should also clarify instances when other state agencies must notify the lead animal health official of disease threats to the animal industry.

B) Disease Tracing and Animal Tracking

i) Animal Tracking Systems

States should individually draft their own language to address state-specific implementation and regulations for administering the animal tracking systems. States should consider the following topic areas when drafting their statutes related to animal tracking: confidentiality of the data; type and amount of information collected;

registration requirements and guidelines; system of identification; system coordination; funding to support the system and financial requirements of participants; and interaction with non-governmental entities.

ii) Certifications of Veterinary Inspection/Health Papers

States should review and revise their statutory authorities related to certifications of veterinary inspections/health papers to assure the processes are most effective.

C) Disease Investigations

i) Conducting investigations

-Statutes should authorize lead animal health officials to investigate suspect disease incidents, regardless of the disease in question.

-Statutes should authorize lead animal health officials to enter and conduct animal health investigations on any farm or facility where animals or carcasses are held.

- In addition states should minimize the use of statutes containing triggers that must be reached prior to initiating an animal disease investigation. Examples of these types of triggers include specific lists of diseases that would warrant investigations or proclamations and notifications that must be made prior to conducting the initial disease investigation. These types of triggers could slow the investigation process, ultimately resulting in further disease transmission.

Emergency Declarations and Proclamations:

States should clarify the following components of emergency declarations in either their state statute or rules.

A) The triggers for initiating each type of declaration.

B) The process to activate each type of declaration.

C) The content of each declaration.

D) The effect of the declaration, ie. authorities and resources that are activated under each type of declaration.

D) How the declarations differ, as well as complement each other.

Disease Control Measures

A) Hold Order (Voluntary Confinement)

It would seem preferable to issue quarantine orders instead of hold orders on all farms or premises where disease is suspected and investigations are ongoing, but because quarantines are legally enforceable, states would then have the ability to prosecute those who knowingly chose to violate the orders. Should animal owners or caretakers choose to violate a voluntary hold order; the states would have no ability to prosecute the violation. But, if states do choose to issue hold orders, they should codify the procedure to assure common understanding of the related issuing authorities.

B) Mandatory Quarantine

i) Quarantine Order Issuing Authorities and Requirements to Consult and / or Notify Other State Officials that Quarantine Orders Have Been Issued.

a) Statutes should clearly identify the primary state official authorized to order quarantines of animals and animal products. This authority should rest in the office with responsibility for animal disease control, therefore, technical expertise is coupled with the decision making authority.

b) States should also statutorily designate secondary representatives who can issue quarantine orders in the primary officials' absence. Doing so is vital to maintaining continuity of government in the event that the primary official is unreachable or incapacitated.

c) State statutes could require the primary and secondary quarantine officials to consult other state officials prior to issuing quarantine orders. While requiring coordination prior to issuing quarantine orders may add an extra layer of bureaucracy, in effect slowing the process, it also creates an intrastate system of checks and balances assuring that powers to issue quarantines are applied judiciously and with just cause. There is no one correct structure that can be applied universally; this decision can only be made by states themselves.

Examples of this type of coordination could include:

-Requiring a lead animal health official, acting as the primary quarantine official, to consult with the leader of the state agriculture department prior to issuing quarantine orders.

-Requiring the leader of the state agriculture department, acting as the primary quarantine official, to consult the governor prior to issuing a quarantine order.

d) This section refers to the act of notifying other officials once the decision to quarantine a site or area has been made, rather than consulting them during the decision making process as described in section c above. Again, depending upon the states organizational structure, some states could consider developing statutory requirements to notify other state officials that an order of quarantine was issued. If a statutory requirement for notification is developed, the timelines for making that notification, for example within one hour, should also be specified in the statute. As with section c above, this requirement will vary by state depending upon the states organizational structure, for example in states where the leader of the state animal health agency is an elected official and therefore not

considered a part of the governor's cabinet, it would be important for the lead animal health official to notify the governor or the order. Prompt notification is especially important if state resources under the governor's authorities need to be activated to enforce the quarantine order. Conversely, statutorily requiring this notification is likely not necessary in states where the lead official for animal health is appointed by the governor or hired by a board which is appointed by the governor. In these states, one would assume that the governor's staff is automatically notified of the initial investigation.

ii) Criteria for Issuing and Effects of Quarantines Orders

a) States should statutorily identify broad triggers for issuing quarantine orders. The ability to issue a quarantine order should not be dependant upon disease confirmation or direct exposure to a confirmed disease. Rather, statutes should be broadly designed to support issuance without laboratory confirmation, as swift response will prevent the unnecessary spread of disease that would likely occur if laboratory confirmation of disease were a required trigger for issuance. The ability to order quarantines should be based on reasonable suspicion supported by evidence, clinical symptoms, epidemiology, preliminary research and investigations. Doing so would ensure that states have the ability to take "preventative" quarantine measures rather than simply responding after a disease has been confirmed

b) If current state statutes list specific diseases for which quarantines can be issued, states should consider eliminating the list format, as it may narrow authorities or cause confusion during the response effort. At a minimum, state statutes should incorporate language allowing flexibility to quarantine yet unknown disease threats, such as emerging infectious diseases, diseases that are not currently in the United States, or any infectious disease or condition that causes harm to the animals, industry, or economy.

c) Statutes should incorporate language allowing quarantines to be established based upon location or proximity to infected sites and/or animals. State infectious animal disease emergency response plans commonly describe a process in which the primary quarantine official will quarantine a designated radius around infected animals or contaminated facilities. Therefore, it is important that

states have the statutory authority to issue this type of quarantine based on proximity to the infectious agent.
d) Because disease can be transmitted via many different mechanisms depending upon the disease in question, quarantine statutes should be written broadly to control the movement of products, as well as all animals that could serve as disease transmitters. Statutes should encompass all animals including companion animals, exotic animals, livestock/poultry, and wildlife species under quarantine orders. Statutes should also enable the quarantine of animal products, potentially contaminated materials, and equipment.
e) Statutes should clearly identify the specific types of actions that quarantine orders control such as: ordering or prohibiting movement; and mandating the segregation and isolation of animals, vehicles, materials, and equipment subject to the order of quarantine.
f) While some states currently require that a declaration or proclamation of animal health emergency be in place prior to issuing quarantine orders, it is recommended that these actions be statutorily addressed separately. Requiring a declaration or proclamation of emergency to be in place prior to issuing a quarantine order will likely slow the disease control process and lead to further disease spread during the time spent coordinating the declaration or proclamation.
g) Statutes should mandate the coordination of animal health and public health quarantines during disease incidents with zoonotic potential. Requiring agriculture and public health officials to coordinate their efforts during a zoonotic disease response will help to assure that gaps are addressed and that resources are maximized.

iii) Providing Notice of Quarantine:
a) Statutes should describe accepted methods for providing notice to those affected by quarantines. Statutes should identify methods to notify specific individuals, as well as, large groups of people whose animals, animal products, vehicles, facilities, and equipment may be located within designated quarantine areas. Several mechanisms for making notice should be incorporated into statutes to assure notification capabilities in various situations.
Some states' existing statutes list specific mechanisms to notify those affected by quarantine orders, such as via the newspaper or in writing. States should review their existing notification statutes and assure that the mechanisms listed include all current information-sharing pathways such as: in

person, in writing, via the television and/or radio, and through emergency notification mechanisms.
Alternatively, statutes could simply state that notifications will be made via the current technologies that are accessible to the state. Or alternatively, statutes could simply state that notifications will be made via the current technologies that are accessible to the state.

b) Statutes should identify the types of information contained within the notice of quarantine. Examples of these would include:

1) Reason for issuing the quarantine
2) Date and time of issuance
3) Name of the owner of the population of animals or animal product, or the approximate area or premise under the order
4) Specific animals or products regulated under the restriction
5) Requirements, prohibitions, and procedures
6) Processes to apply for specific permits, if states anticipate issuing permits for limited animal and animal product movement, to support animal welfare or movement to slaughter for example.
7) Instructions for those opposing the process, to appeal quarantine orders.
8) The signature of the person issuing the order

iv) Statutes should specify who has the authority to enforce quarantine orders. It is anticipated that agriculture officials will require assistance from local and state law enforcement personnel to operationally enforce quarantine orders, thus this cooperation should be defined statutorily.
Another option to address this issue would be to statutorily indicate that the Governor has the authority to call upon all state and local officials to provide support for the enforcement of a quarantine order.

v) While some states have chosen to simply issue flat rate fines for violators, others have developed procedures for judging the severity of the violation and penalizing appropriately. States should review their civil and criminal penalties for violating orders of quarantine and determine whether their current statutes are strong enough deterrents for violators. It is recommended that states consider incorporating strong civil and criminal penalties for violations of quarantine orders.

vi) Appealing Quarantine Orders

States should develop procedures for affected livestock owners and citizens to appeal quarantine orders, and the specific procedures should be addressed in statute or administrative rules. Developing an appeals process is important, because quarantines will cause significant disruption and economic hardship for those affected. Therefore, livestock owners and businesses affected by orders should have a mechanism to question orders they feel are inappropriate and unjust.

vii) Release of Quarantine. Statutes should describe the mechanisms through which quarantines will be released. Statutes should discuss reasons why quarantines would be released, such as confirmation that disease is not present, the threat of disease is no longer present, or all facilities have been properly decontaminated. Statutes should also designate the officials who are authorized to release the quarantine.

b. Condemnation

States should possess the statutory authority not only to inspect and quarantine, but also to condemn animals. Currently, some state statutes address condemnation of animals on a disease-specific basis, for instance specifically related to Classical Swine Fever (Hog Cholera) and Mycobacterium bovis (bovine tuberculosis). This can be problematic if state statutes do not also allow condemnation of all diseases of concern, including new and emerging diseases. Additionally, some states may choose to combine condemnation with their code section on quarantine. Regardless of where the statute addressing condemnation is located, states must assure that authorities are written clearly and broadly to authorize condemnation of animals suspected to be diseased, confirmed to be diseased, and potentially exposed to disease.

Making payment to the animal owners for the animals condemned and destroyed, called indemnity payments, will be an important component to seizure and condemnation.

c. Carcass Disposal

Because infectious animal disease outbreaks may necessitate euthanizing and disposing of animals, states should statutorily assign lead agencies to address disposal of carcasses. The lead agency should be charged with developing the mechanisms and procedures to coordinate and direct carcass disposal during animal health emergencies.

Public Information Regarding Animal Health Emergencies

States may want to consider enacting statues requiring coordination of public information through a joint information center during emergency response.

In non-emergency situations, there should either be one agency responsible for putting out messages regarding animal diseases or multiple agencies should be required statutorily to coordinate the release of public information.

Indemnity and fiscal considerations

Indemnity refers to a financial payment made to a livestock producer to compensate that producer for livestock that are destroyed due to disease or illness. Indemnity is a vital part of the disease control process because indemnity payments serve as an important financial incentive for producers and caregivers to report disease incidence to state and federal regulators. Some states have developed state-supported or agriculture industry-supported indemnity programs, and therefore state statutes should describe the guidelines of these programs. There are also federal and state/federal cost sharing indemnity programs; therefore it is important that statutes clearly differentiate between the programs and identify the requirements and triggers for each.

In addition to indemnity payments, statutes should clarify animal owner and state responsibilities related to expenses accrued during the quarantine, euthanasia, and carcass disposal process. There are many variables that influence financial responsibility during the disease control process, all the more reason that the responsibilities should be clearly identified in state statute.

Wildlife considerations

Because many infectious animal diseases, such as Foot and Mouth Disease (FMD), are infectious to both domestic animals and wildlife, like deer in the case of FMD, states must clearly identify the agencies/entities responsible for addressing wildlife considerations in animal disease emergencies. The agency responsible for wildlife considerations during animal disease emergency response efforts should be the same agency with responsibilities for wildlife health during non-emergency situations. Some states define responsibilities statutorily and others may identify them in state response plans. Regardless of how states choose to designate the responsibilities, it is important that agencies understand their responsibilities, and are prepared to respond to animal health emergencies that cross between the domestic animal and wildlife populations.

Orders of embargo

States periodically issue orders of embargo that prohibit the importation of specific animals and animal products into the state from areas of the country or other states where disease or contamination is suspected or confirmed. Issuing embargoes often complicates matters on the national level when dealing with importation and exportation of products to other counties. However, states have the prerogative to issue orders of embargo and control animal and animal product movement into their respective states. States should review their statutes related to embargoes to ensure that authorities are clearly delineated and broad enough to address all types of animals and animal products.

Financial considerations of response efforts

Financial considerations of response efforts should be a central concern to states in preparing for animal health emergencies. State statutes should address mechanisms to pay for agriculture-specific response-related expenses.

States have state emergency funds designated to pay for response actions during large-scale state emergencies. Some state animal health agencies also have emergency funds dedicated for animal health emergency response expenses. While the federal government has the authority to reimburse for some types of disease response depending upon the disease and scale of the incident, states must also have mechanisms in place to pay for immediate response actions. This is especially important in situations where there may not be federal declarations in place or while federal declarations are being processed and federal funding is not yet available. All funding mechanisms need to be clearly delineated in statute to ensure that there is no confusion and that there is clear distinction between the trigger levels to initiate each source of funds.

Interstate coordination States have a mechanism to share resources and personnel with other states in emergencies. This mechanism is called the Emergency Management Assistance Compact (EMAC)[40], to which 49 states, the District of Columbia, Puerto Rico and the Virgin Islands are signatories. A requirement of joining EMAC is ratifying common compact language in each state's statute. This discussion is included to assure that state departments of agriculture and animal health officials are aware of the legislation and mechanism to share and draw resources. This discussion is also included to remind states that as they are reviewing their statutes related to animal health emergency response, they should keep the EMAC process in mind and write statutes with the flexibility to share resources, such as their volunteer veterinary corps, through the well established EMAC process.

Volunteer veterinary corps

As states develop state-specific volunteer veterinary response structures to bolster their state response capacities, they should develop statutes to address the volunteer structures. States should not rely on federal programs to pay their volunteer veterinary teams or address liability and workers' compensation. Rather, states should create their own mechanisms and structures to call up and protect their state's volunteer veterinary team. States should specifically address team call up, liability, workers' compensation, reporting authorities, sharing of veterinary teams with others states through EMAC, and financial considerations in their statutes. Developing these state statutes will not only provide added protection for state volunteers, but will also ensure that states can activate their volunteer structures to respond to lesser emergencies, which may not warrant federal action but which state animal health authorities may need assistance in resolving.

[40] *Emergency Management Assistance Compact.* Available: http://www.emacweb.org/ [2/10/2006]

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